

ABSTRACT

A micro-electromechanical fluid ejection device includes a substrate that incorporates drive circuitry. Nozzle chamber walls and a roof are positioned on the substrate to define a nozzle chamber with the roof defining a fluid ejection port in fluid communication with the nozzle chamber. A fluid-ejecting member is operatively positioned with respect to the nozzle chamber. The fluid-ejecting member is displaceable with respect to the substrate to eject fluid from the fluid ejection port. An actuator is connected to the fluid-ejecting member and to the drive circuitry. The actuator is displaceable upon receipt of an electrical signal from
10 the drive circuitry to displace the fluid-ejecting member and thus eject fluid from the fluid ejection port. A covering formation is positioned on the substrate so that the substrate and the covering formation define an air chamber, the actuator being positioned within the air chamber.